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(54) Title: NOVEL BACILLUS mHKcel CELLULASE

ORF Nucleotide sequence of mHKcel cellulase gene

ATGGGTTATA CCCAAGCTAA GTGTAATGGT AAAAAACGG TCTTGTGTTGG 50
TTAATTCTC TGTTTAGGTG TGTCAATGTT TGTACCAGTT ACATCAGCTG 100
AAGATAGGGT CTCCTCGTCA CAGGTGGATA TCCAATCATA TGTAGCAGAT 150
ATGCAACCTG GCTGGAAATT AGGTAATACA TTTGATGCGA TAGGAGATGA 200
TGAAACAGCA GGGGAAACC CTCGTGTAAC GAGAGAATTA ATAGAATGA 250
TTGCTGATGA AGGGTATAAA AGTATTGCTA TCCAGTCAC ATGGCAAAAT 300
CAATGGGTG GTTCTCCAGA TTATACAATT AATGARGATT ATATCAGCG 350
GGTAGAGCAA GTGATAGATT GGGCGTTGGA GGAAGACTTG TATGTGATGT 400
TAAATGTGCA TCATGACTCA TGGCTGTGGA TGTATGATAT GGAACATAAC 450
TATGATGAGG TGATGGCAAG ATATACAGCT ATTGCGGAAC AATGTGCGGA 500
AAATTCAAA AACCACTCCC ATAAGTTGAT GTTTGAGAGT GTCAATGAGC 550
CTAGGTTTAC GCAGGAGTGG GGAGAGATT CAGAAAATCA TCATGCTTAC 600
TTAGAGGATT TAAATAAGAC GTTCTATTAT ATTGTCAGAG AGTCAGGAGG 650
CAATAATGTG GAGCGCCCTT TAGTATTGCC TACGATAGAA ACAGCCACGT 700
CTCAGGATTT ACTAGATCGC TTGTATCAAA CAATGGAAGA CTTGGATGAC 750
CCTCAITTA TGGCCACGGT TCATTATTAT GGCTTTTGGC CCTTAGTGT 800
CAATATAGCA GGGTACACCC GTTTTGAACA GGAGACACAA CAAGATATTA 850
TAGACACGTT TGACCGTGT CATAACACAT TTACAGCGAA TGGGATCCCA 900
GTTGATTAG GTGAATTGG TTTGTTAGGC TTTGATATAA GTACGGACGT 950
CAITTCAGCA GGTGAGAAAT TAAATTTT TGAATTTCTC ATCCATCATC 1000
TCAATGAACG TGATATAACC CATATGTTAT GGGATAACGG TCAGCATTTA 1050
AAGCGAGAAA CTTATTCAAG GTATGATCAG GAATTTCAAT ACATATTAAA 1100
AGCGAGTTGG GAGGGGCGTT CTGCTACAGC TGAGTCTAAT TTCAITTCATG 1150
TGAAGACGG AGAGCCAAAT AGAGATCAAC ATATACAGCT TCACTTAAAC 1200
GGAAATGAGC TAACTGOCCT ACAGGCAGGG GACGAATCGC TTGTACTAGG 1250
AGAGGATTAT GAGCTAGCAG GAGACGTATT AACGCTAAAA GCGGCGCATCC 1300
TCACAGATT AATTACOCCT GGCCAAATTAG GAACGAATGC GGTCAATCACA 1350
GCTCAATTTA ATCTGGAGC AGACTGGCGT TTCAATTAC AGAATGTGGA 1400
CGTGCCRAA GTCGAAATA CAGATGGCTC AATATGGCAT TTTGCGATCC 1450
CTACCATTT TAATGGTGAT AGTCTTGCGA CGATGGAAGC TGTATTATGA 1500
AACGGAGAA ATGCTGGCCC GCAGATTGG ACGTCATTTA AAGAATTTGG 1550
CGAGGCGTTT TCCCTAATT ACGCCACAGG GGAAATTAAT ATAACAGAAG 1600
CCTTCTTTAA CGCGGTACGG GATGATGATA TCCATTTAAC ATTTCAATT 1650
TGGAGCGGAG AGACGGTGG AATATCATTA CGTAAAAATG GAAATTAATG 1700
TCAAGGTAGA CCGTAA 1715

(57) Abstract: The present invention provides a novel cellulase nucleic acid sequence, designated mHKcel, and the corresponding mHKcel amino acid sequence. The invention also provides expression vectors and host cells comprising a nucleic acid sequence encoding mHKcel, recombinant mHKcel proteins and methods for producing the same.

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